24. (Twice Amended) A method of fabricating a semiconductor device comprising steps of:

forming an amorphous semiconductor film [on] over a substrate having an insulating surface;

adding a solution including a catalyst material in contact with said amorphous semiconductor film, said catalyst material being capable of promoting crystallization of said amorphous semiconductor film;

first heating said amorphous semiconductor film to crystallize said amorphous semiconductor film;

irradiating said crystallized semiconductor film with a light to promote further crystallization of said crystallized semiconductor film after said first heating step; and

reducing defects in said crystallized semiconductor film by second heating said crystallized semiconductor film at a temperature not lower than 450°C after said irradiating step; and then

annealing said crystallized semiconductor film in [a hydrogen containing] an atmosphere comprising hydrogen for hydrogenation after said second heating.

32. (Twice Amended) A method of fabricating a semiconductor device comprising steps of:

forming an amorphous semiconductor film [on] over a substrate having an insulating surface;

selectively adding a solution including a catalyst material in contact with a first portion of said amorphous semiconductor film while said solution is not added to a second portion of said amorphous semiconductor film, said catalyst

material being capable of promoting crystallization of said amorphous semiconductor film;

first heating said amorphous semiconductor film so to crystallize said amorphous semiconductor film so that crystal growth proceeds from said first portion to said second portion in a lateral direction with respect to said insulating surface;

irradiating said crystallized semiconductor film with a light to promote further crystallization of said crystallized semiconductor film after said first heating step; and

reducing defects in said crystallized semiconductor film by second heating said crystallized semiconductor film at a temperature not lower than 450°C after said irradiating step; and then

annealing said crystallized semiconductor film in [a hydrogen containing] an atmosphere comprising hydrogen for hydrogenation after said second heating.

38. (Twice Amended) A method according to claim 32 wherein said first portion of said crystallized semiconductor film [comprises] contains said catalyst material at a first concentration of 1×10^{16} to 1×10^{19} atoms-cm^{-3} while [the] said second portion of said crystallized semiconductor film [comprises] contains said catalyst material at a second concentration lower than said first concentration.

41. (Twice Amended) A method of fabricating a thin film transistor comprising steps of:

forming an amorphous semiconductor film [on] over a substrate having an insulating surface;

selectively adding a solution including a catalyst material in contact with a first portion of said amorphous semiconductor film while said solution is not added to a second portion of said amorphous semiconductor film, said catalyst material being capable of promoting crystallization of said amorphous semiconductor film;

first heating said amorphous semiconductor film to crystallize said amorphous semiconductor film so that crystal growth proceeds from said first portion to said second portion in a lateral direction with respect to said insulating surface;

irradiating said crystallized semiconductor film with a light to promote further crystallization of said crystallized semiconductor film after said first heating step;

reducing defects in said crystallized semiconductor film by second heating said crystallized semiconductor film at a temperature not lower than 450°C after said irradiating step; and

forming a channel forming region in said semiconductor film using said second portion of the crystallized semiconductor film; and then

annealing said crystallized semiconductor film in [a hydrogen containing] an atmosphere comprising hydrogen for hydrogenation after said second heating.

47. (Twice Amended) A method according to claim 41 wherein said first portion of said crystallized semiconductor film [comprises] contains said catalyst material at a first concentration of 1×10^{16} to 1×10^{19} atoms-cm^{-3} while [the] said second portion of said crystallized semiconductor film [comprises] contains said catalyst material at a second concentration lower than said first concentration.

50. (Twice Amended) A method of fabricating a semiconductor device comprising steps of:

forming an amorphous semiconductor film [on] over a substrate having an insulating surface;

introducing a catalyst material in contact with said amorphous semiconductor film, said catalyst material being capable of promoting crystallization of said amorphous semiconductor film;

first heating said amorphous semiconductor film to crystallize said amorphous semiconductor film;

irradiating said crystallized semiconductor film with a light to promote further crystallization of said crystallized semiconductor film after said first heating step; and

reducing defects in said crystallized semiconductor film by second heating said crystallized semiconductor film at a temperature not lower than 450°C after said irradiating step; and then

annealing said crystallized semiconductor film in [a hydrogen containing] an atmosphere comprising hydrogen for hydrogenation after said second heating.

56. (Amended) A method of manufacturing a semiconductor device comprising:

forming a semiconductor film comprising amorphous silicon [on] over a substrate having an insulating surface;

crystallizing said semiconductor film by first heating:

irradiating the crystallized semiconductor film with a pulsed excimer laser light to increase [a] crystallinity of the semiconductor film after said first

heating wherein one portion of said semiconductor film is irradiated with a plurality of shots of said pulsed excimer laser light,

reducing defects of the crystallized semiconductor film by second heating at a temperature not lower than 450°C after the irradiation of said laser light.

Please add new claims 59-63 as follows:

--59. A method according to claim 24 said second heating is performed at a temperature lower than a strain point of said substrate.

60. A method according to claim 32 said second heating is performed at a temperature lower than a strain point of said substrate.

61. A method according to claim 41 said second heating is performed at a temperature lower than a strain point of said substrate.

62. A method according to claim 50 said second heating is performed at a temperature lower than a strain point of said substrate.

63. A method according to claim 56 said second heating is performed at a temperature lower than a strain point of said substrate.--